OCT 2 7 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Applicant Docket No.

Yuhua Li, et al.

Serial No. : Filed :

UCF-370 10/661,184 09/12/2003

Examiner

Michael P. Mooney

TC/AU

2883

Customer No.

23717

For

ALL-OPTICAL REGENERATION

Commissioner of Patents and Trademarks Patent and Trademark Office P.O. BOX 1450 Alexandria, VA 22313-1450

Honorable Commissioner:

Please incorporate the attached Information Disclosure Statement, Form PTO-1449 and prior art references to be made of record in the above-identified application.

A credit card payment form in the amount of \$180.00 is attached under 37 CFR 1.17(p).

Respectfully submitted,

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CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below as First Class Mail, in an envelope addressed to the: Commissioner of Patents and Trademarks, PO Box 1450, Alexandria, VA 22313-1450...

Date 10/27, 2006

BRIAN S. STEINBERGER (Name of Person Mailing Paper)

Signature of Person Mailing Paper



Applicant Yuhua Li, et al. Docket No. UCF-370 Serial No. 10/661,184 Filed 09/12/2003

Examiner Michael P. Mooney

TC/AU 2883 Customer No. 23717

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INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents and Trademarks Patent and Trademark Office P.O. BOX 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR 1.97 and 1.98, record is being made below in a form PTO-1449 of documents which the Patent Office may wish to consider in connection with examination of the above-identified patent application. It is respectfully requested that the cited documents be carefully considered by the Examiner and made of record in this case. As provided in 37 CFR 1.97(g), no representation is made or intended that a thorough art search was made. As provided in 37 CFR 1.97(h), this Supplemental Information Disclosure Statement does not constitute an admission of any kind, and specifically is not an admission that the documents listed on the attached PTO FORM 1449 are, or are considered to be, material to the patentability of the above-identified patent application, as defined in 37 CFR 1.56(b).

Under 37 CFR 1.98(c) the Information Disclosure Statement with Prior Art should be considered and made of record since it is being provided before the mailing date of any final action or Notice of Allowance or a Notice of Closing of Prosecution. The cited Patents and Publications were filed with the original Application. Accordingly, copies of those documents are not provided with this Statement pursuant to 37 CFR § 1.98(d). A fee in the amount of \$180.00 set forth in CFR 1.17(p). is respectively submitted.

Under sec. 1.97(c)(2), entry of this Information Disclosure Statement is proper and acceptable since the patent application status is after a first office action and is not under a final rejection, and the fee of \$180.00 set forth in sec. 1.17(p) is attached with this submission.

It is respectfully requested that the cited references be carefully considered by the Examiner and made of record in the above-identified application.

10/30/2006 WABDELR1 00000054 10661184

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Dated: 10/24, 2006

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US DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

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APPLICANT: YUHUA LI, et al.

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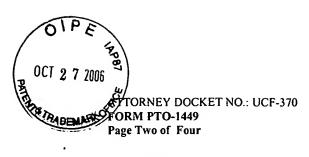
SERIAL NO.: 10/661,184

LIST OF ART CITED BY APPLICANT

U.S. PATENT DOCUMENTS

EXAMINER	DOCUMENT NO.	DATE	NAME	CLASS / SUBCLASS	
AA	3,566,128	02/23/1971	Arnaud	250/199	
AB	5,828,478	10/27/1998	Thomine, et al.	359/181	
AC	5,933,265	08/03/1999	Nagarajan	359/189	
AD	6,078,416	06/20/2000	Yano	359/158	
AE	6,108,125	08/22/2000	Yano	359/344	
AF	6,141,129	10/31/2000	Mamyshev	359/176	
AG	6,201,621	03/13/2002	Desuvire, et al.	359/158	
АН	6,335,819	01/01/2002	Cho, et al.	359/333	
AI	6,437,320	08/20/2002	Yoshida, et al.	250/227.11	
PUBLISHED PATENT APPLICATIONS					
PA	2001/0013965A1	08/16/2001	Wantanabe	359/161	
	FOREIGN PATENT DOCUMENTS				

- OA1 Hirkazu Kubota, Masataka Nakazawa, "Soliton Transmission Control in Time and Frequency Domains," IEEE Journal of Quantum Electronics, Vol. 29, No. 7, July 1993 pp. 2189-2197.
- OA2 J.P. Sokoloff, P.R. Prucnal, I.Glesk, M. Kane, "A Terahertz Optical Asymmetric Demultiplexer (TOAD)," IEEE Photonics Technology Letters, Vol. 5, No. 7, July 1993 pp. 787-790

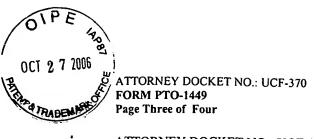


ATTORNEY DOCKET NO.: UCF-370 APPLICANT: YUHUA LI, et al. FOR: ALL-OPTICAL REGENERATION

EXAMINER

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

- OA3 Kyo Inoue, "Suppression of Signal Fluctuation Induced by Creosstalk Light in a Gain Saturated Laser Diode Amplifier," IEEE Photonics Technology Letters, Vol. 8, No. 3, March 1996, pp. 458-460.
- OA4 R.J. Manning, A.D. Ellic, A.J. Poustie, K.J. Blow, "Semiconductor laser amplifiers for ultrafast all-optical signal processing," J. Opt. Soc. Am. B, Vol. 14, No. 11, November 1997, pp. 3204-3216.
- OA5 Yoshiyasu Ueno, Shigeru Nakamura, Kazuhito Tajima, Shotaro Kitamura, "3.8-THz Wavelength Conversion of Picosecond Pulses Using a Semiconductor Delayed-Interference Signal-Wavelength Converter (DISC)," IEEE Photonics Technology Letter, Vol. 10, No. 3, March 1998, pp. 346-348.
- OA6 K.S. Jepson, A. Buxens, A.T. Clausen, H.N. Poulsen, B. Mikkelsen, K.E. Stubkjaer, "20Gbit/s optical 3R regeneration using polarization-independent monolithically integrated Michelson interferometer," Electronics Letters, March 5, 1998, Vol. 34, No. 5, pp. 472-476.
- OA7 P. V. Mamyshev, "All-Optical Data Regeneration Based on Self-Phase Modulation Effect," European Conference on Optical Communication, September 20-24, 1998, Madrid Spain, pp. 475-476.
- OA8 A.E. Kelly, I.D. Phillips, R.J. Manning, A.D. Ellis, D. Nesset, D. G. Moodie, R. Kashyap, "80 Gbit/s all-optical regenerative wavelength conversion using semiconductor optical amplifier based interferometer," Electronics Letters, August 19, 1999, Vol. 35, No. 17, pp. 1477-1478.
- OA9 Pak S. Cho, Daniel Mahgerefteh, "All-Optical 2R Regeneration and Wavelength Conversion at 20 Gb/s Using an Electroabsorption Modulator," IEEE Photonics Technology Letters, Vol. 11, No. 12, December 1999, pp. 1662-1664.
- OA10 S. Watanabe, S. Takeda, "All-optical noise suppression using two-stage highly0nonlinear fibre loop interferometers," Electronics Letter, Vol. 36, No. 1, January 6, 2000, pp. 52-53.
- OA11 P. Brindel, O. Leclerc, D. Rouvillain, B. Dany, E. Desurvire, P. Nouchi, "Experimental demonstration of new regeneration scheme for 40 Gbit/s dispersion-managed long-haul transmissions," Electronics Letters, Vol. 36, No. 1, January 6, 2000, pp. 61-62.
- O. Leclerc, P. Brindel, D. Rouvillain, B. Dany, E. Pincemin, E. Desurvire, C. Duchet. A. Shen, F. Blache, F. Devaux, A. Coquelin, M. Goix, S. Bouchoule, P. Nouchi, "Dense WDM (0.27 bit/s/Hz) 4x40Gbit/s dispersion-managed transmission over 10000km with in-line optical regeneration by channel pairs, Electronics Letters, Vol. 36, No. 4, February 17, 2000, pp. 337-338.



ATTORNEY DOCKET NO.: UCF-370 APPLICANT: YUHUA LI, et al.

FOR: ALL-OPTICAL REGENERATION

EXAMINER

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

- M. Dulk, St. Fischer, E. Gamper, W. Vogt, E. Gini, H. Melchior, W. Hunziker, H.N. OA13 Poulsen, A.T. Clausen, A. Buxens, P. Jeppesen, "Efficient regenerative wavelength conversion at 10 Gbit/s over C- and L-band (80 nm span) using a Mach-Zehnder interferometer with monolithically integrated semiconductor optical amplifiers," Electronics Letters, Vol. 36, No. 3, February 3, 2000, pp. 241-243.
- D. Wolfson, A. Kloch, T. Fjelde, C. Janz, B. Dagens, M. Renaud, "40-Gb/s All-Optical Wavelength Conversion, Regeneration, and Demultiplexing in an SOA-Based All-Active Mach-Zehnder Interferometer," IEEE Photonics Technology Letters, Vol. 12, No. 3, March 2000, pp. 332-334.
- J. Leuthold, C.H. Joyner, B. Mikkelsen, G. Raybon, J.L. Pleumeekers, B.I. Miller, K. Dreyer, C.A. Burrus, "100 Gbit/s all-optical wavelength conversion with integrated SOA delayed-interference configuration," Electronics Letters, Vol. 36, No. 13, June 22, 2000, pp. 1129-1130.
- O. Leclerc, B. Dany, D. Rouvillain, P. Brindel, E. Desurvire, C. Duchet, A. Shen, F. Devaux, A. Coquelin, M. Goix, S. Bouchoule, L. Fleury, P. Nouchi, "Simultaneously regenerated 4 x 40 Gbit/s dense WDM transmission over 10,000 km using single 40 GHz InP Mach-Zehnder modulator," Electronics Letters, Vol. 36, No. 18, August 31, 2000, pp. 1574-1575.
- **OA17** Yikai Su, Lijun Wang, Anjali Agarwal, Prem Kumar, "Simultaneous 3R regeneration and wavelength conversion using a fiber-parametric limiting amplifier," Optical Society of America, 2000, pp. MG41-MG4-3.
- OA18 F. Liu, X. Zhang, R.J.S. Pedersen, P. Jeppesen, , "Interferometric crosstalk suppression using polarizationmultiplexing technique and an SOA," IEEE Photonics Technology Letters, CLEO 2000, pp. 91-92.
- OA19 M. Owen, V. Saxena, R.V. Penty, L.H. White, "10-Gbits/s all-optical 3R regeneration and format conversion using a gain-switched DFB laser," IEEE Photonics Technology Letters, CLEO 2000, pp. 472-473.
- Shigeru Nakamura, Yohiyasu Ueno, Kazuhito Tajima, "168-Gb/s All-Optical OA20 Wavelength Conversion With a Symmetric-Mach-Zehnder-Type Switch," IEEE Photonics Technology Letters, Vol. 13, No. 10, October 2001, pp. 1091-1093.
- G. Raybon, Y. Su, J. Leuthold, R-J. Essiambre, T. Her, C. Joergensen, P. Steinvurzel, K. Dreyer K. Feder, "40 Gbit/s Pseudo-linear Transmission Over One Million Kilometers," IEEE Photonics Technology Letters, Optical Fiber Communications Conf., 2002, pp. FD101-FD103.
- M. Owen, M.F.C. Stephens, R.V. Penty, I.H. White, "All-Optical 3R Regeneration and Format Conversion in an itegrated SOA/DFB Laser," IEEE Photonics Technology Letters, Optical Fiber Communications Conf., 2000, pp. 76-78.

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ATTORNEY DOCKET NO.: UCF-370 APPLICANT: YUHUA LI, et al.

FOR: ALL-OPTICAL REGENERATION

EXAMINER

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

- OA23 Tomohiro Otani, Tetsuya Miyzaki, Shu Yamamoto, "40 Gbit/s Signal Transmission using Optical 3R Regenerator based on Electroabsorption Modulators," IEEE Photonics Technology Letters, Optical Fiber Communications Conf., 2000, pp. 226-228.
- OA24 G. Raybon, B. Mikkelsen U. Koren, B.I. Miller, K. Dreyer, L. Boivin, S. Chandrasekhar, C.A. Burrus, "20 Gbit/s all-optical regeneration and wavelength conversion using SOA based interferometers," IEEE Photonics Technology Letters, Optical Fiber Communications Conf., 1999, pp 27-29.

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